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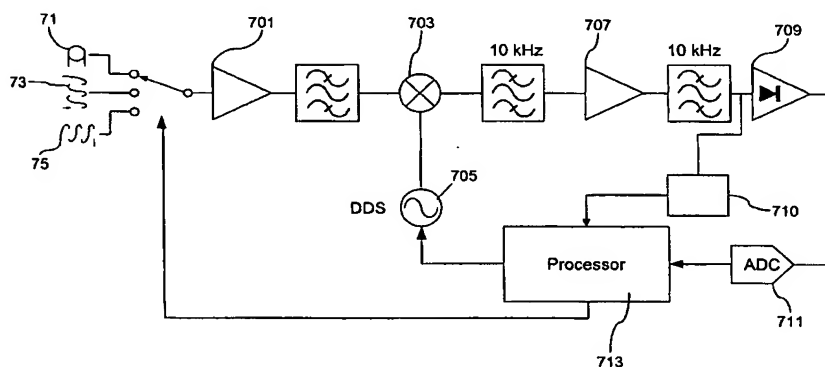
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(54) Title: PROXIMITY DETECTING APPARATUS



(57) Abstract: Embodiments of the invention are concerned with proximity detecting apparatus and are concerned particularly with radio frequency proximity detecting apparatus that operate in the low radio frequency range. Embodiments of the present invention also relate to radio frequency transmitter and radio frequency receiver designs generally. Arrangements according to the invention embody a radio frequency receiver for use in a proximity detecting system, the radio frequency receiver comprising at least one antenna coil operable to receive radio frequency signals; tunable receiver circuitry arranged in operative association with the antenna coil and being arranged to modify the frequency at which radio signals are received by the radio frequency receiver; and a signal processor arranged to amplify and filter signals received by the radio frequency receiver, wherein the radio frequency receiver is operable to receive and process radio signals of frequencies between 100kHz and 10MHz. By operating in the low frequency range, multi-path problems associated with high frequency equipment (such as reflections from objects located between the path of the transmitter and receiver) are significantly reduced, whilst distance between transmitter and receiver can be identified extremely accurately.



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